

Remarks

The present Amendment cancels claim 1, amends claims 2-10 and adds claims 11-21. Accordingly, the application presents twenty (20) total claims, of which two (2) are in independent form (claims 11 and 17). Applicant expects no claim fees being due upon submittal of this Amendment. With the three month extension for filing this Amendment, Applicant hereby submits the fee of \$510. For any other fees which are deemed necessary following submittal of this Amendment, the undersigned hereby authorizes such fees to be charged to our deposit account, Deposit Account No. 061910.

In the Office Action, Examiner objects to claims 3 and 5 for various informalities. Claim 3 is now amended, replacing “favour” with “favor”, and claim 5 is now also amended, canceling use of the term “plan”. According, Examiner’s objections are overcome.

In addition, Examiner rejects claims 6-10 under 35 USC 112 based on the use of TEFLON in claim 6. In addition, Examiner rejects claims 7-10 under 35 USC 112 as it unclear in claim 7 as to what structure is being referred to as the “circular ring”. Claim 6 is now amended, whereby the term “TEFLON” has been deleted, and claim 7 is now amended to change “the circular ring” to “the disc”. Accordingly, Applicant has overcome Examiner’s rejections.

Also, Examiner rejects claims 1 and 2 under 35 USC 102(b) as being anticipated by US Patent No. 4,826,132 (Moldenhauer); rejects claims 3-6 under 35 103(a) as being unpatentable over Moldenhauer in view of US Patent No. 4,917,357 (Danko); and rejects claim 7 as being unpatentable over Moldenhauer in view of Danko as applied to claim 7 and further in view of US Patent No. 5,820,105 (Yamaji et al.). Applicant respectfully traverses the 102(b) rejections with respect to Moldenhauer and the 103(a) rejections based on either Moldenhauer in combination with Danko, or Moldenhauer in combination with Danko and Yamaji et al. However, to further advance prosecution of the application, Applicant cancels claim 1, replacing such with new claim 11.

The undersigned appreciates the courtesy of the Examiner in granting a brief telephonic interview on July 27, 2006 regarding the pending application. As discussed, the claims as proposed above provide various points of novelty over the currently cited art.

As discussed, and now more directly provided in new claim 11, the present invention provides a shut-off valve including an internal chamber having internal elements which are convex in shape or orientation. In certain embodiments of the present invention, as reflected in claim 11, a closure member of the valve includes a head oriented toward a first duct of a body chamber of the valve, with such head having a convex sealing face with respect to the first duct. In turn, the convex sealing face at least partially enters an inner opening of the first duct in a closed position of the closure member. In addition, a disc, integrally formed with the closure member head and extending along both sides thereof, is in a convex orientation with respect to the valve body chamber in the closed position of the closure member. Therefore, newly added claim 11 claims a shut-off valve having features that are believed by Applicant to not be taught or suggested by Moldenhauer.

For example, Moldenhauer neither teaches nor suggests a valve having a closure member with convex sealing face or having a disc integrally formed with such closure member to be in a convex orientation with respect to the valve body chamber. On the contrary, Moldenhauer teaches a valve having a valve plate 10 with slightly concave surface so that areas 10a thereof are radially at an acute angle to sealing plane S of sheet 13 when the valve closes (see Fig. 1 and Col. 4, lines 6-13). Further, Moldenhauer teaches an isolating diaphragm 12 to have a concave orientation with respect to the valve chamber 2 (see Fig. 1).

Therefore, Applicant believes new claim 11 is patentable over Moldenhauer. In turn, upon a finding of allowance for such claim 11, the underlying dependent claims, claims 2-10 and 12-16 are allowable as well.

In turn, the rejections under Section 103(a) with respect to Moldenhauer in view of Danko and with respect to Moldenhauer in view of Danko and Yamaji et al. are traversed as well, particularly since Danko appears to be cited only for its description of connecting a pipe at an angle to a valve duct and since Yamaji et al. appears to be cited only for its description of adding a sealing ring between an actuator body and a disc in order to seal the valve chamber from the actuator body. As such, neither adds to remedy the defects in Moldenhauer.

New independent claim 17 is also believed by the Applicant to be patentable in light of the currently cited references. In turn, upon a finding of allowance for such claim 18, the underlying dependent claims, claims 18-21 are allowable as well.

Applicant believes that no new matter will be introduced by entry of these new and amended claims and that such are fully supported by the specification and application as a whole. Applicants have added and amended the claims solely to advance prosecution of this application and to obtain the allowance of claims at the earliest possible date. No admission should be inferred by these amendments. Applicants reserve the right to prosecute the originally filed claims in a continuation application.

In light of the above, applicants submit that the present rejections should be withdrawn. If the Examiner feels that prosecution of the present application can be materially advanced by a telephonic interview, the undersigned would welcome a call at the number listed below.

Respectfully submitted,

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